

What I claim is:

1. A molding apparatus for resin shielding semiconductor device, comprising:
a lower platen having a lower cavity, a lower resin passage and a gate to
connect the lower resin passage to the lower cavity, the lower passage having a
5 region of reduced thickness adjacent to the gate; and
an upper platen having an upper cavity, an upper resin passage and a recess,
the upper resin passage being connected to the lower resin passage to form a
runner when the one of the platens is moved toward the other until they contact,
the recess being formed adjacent to the upper cavity at the location that
10 corresponds to the region when the lower and upper platens are contacted.
2. A molding apparatus as claimed in claim 1, wherein an area of the recess is
substantially the same as that of the lower resin passage in the region.
- 15 3. A method for removing surplus resin from a semiconductor device without
leaving burrs, comprising:
providing a molding apparatus including a lower platen having a pot, a lower
cavity, a lower resin passage and a gate to connect the lower resin passage to the
lower cavity, the lower passage having a region of reduced thickness adjacent to
20 the gate, and an upper platen having a cull, an upper cavity, an upper resin
passage which is connected to the cull and a recess, the recess being formed
adjacent to the upper cavity at the location that corresponds to the region when the

lower and upper platens are contacted;

placing a lead frame on which a semiconductor chip is mounted, on the lower platen, the lead frame having an opening;

5 moving one of the platens toward the other until they contact to connect the upper resin passage to the lower resin passage to form a runner, and whereby the semiconductor chip is enclosed in a space which is formed by the cavities;

placing a resin tablet in the pot, and heating the tablet until it melts;

transferring the melted resin to the runner via the cull and the recess, and injecting the melted resin from the gate through the opening of the lead frame;

10 solidifying the melted resin in the space, the runner, the cull and the recess;

providing a degating apparatus including a movable plate, a binder, a revolved shaft and a lifting device;

placing the lead frame having the solidified resin, on the plate, and fixing the solidified resin formed in the cull by the binder; and

15 lifting the plate, and turning the plate on the shaft to break the solidified resin which was formed at a location corresponding to the gate.

4. A lead frame for the semiconductor device from which surplus resin can be detached without leaving burrs, comprising

20 a first region in which a semiconductor chip can be encapsulated with resin; and

a second region in which an opening is formed, the opening having one end,

which extends to the first region, and opposite end being rounded.